

In the claims:

For the Examiner's convenience, all pending claims are presented below with changes shown. Please cancel claim 27 without prejudice.

1    1.    (Previously Presented)      A method comprising:  
2           testing a duty cycle of a random bit source;  
3           varying an output voltage of a voltage source if the duty cycle has not  
4 substantially reached a first threshold; and  
5           iteratively altering the output voltage of the voltage source until the duty cycle has  
6 not substantially reached the first threshold.

1    2.    (Original)      The method of claim 1 further comprising:  
2           periodically latching a high frequency signal in response to a low frequency  
3 signal; and  
4           outputting one or more binary digits corresponding to a voltage level of the  
5 latching high frequency signal.

1    3.    (Previously Presented)      The method of claim 1 wherein varying the output  
2 voltage of the voltage circuit further comprises updating a threshold voltage of a flash  
3 memory cell in the voltage circuit.

1    4.    (Original)      The method of claim 1 wherein varying the output voltage of the  
2 voltage circuit further comprises:  
3           varying an input current to a non-inverting input of a differential amplifier to  
4 produce a first input voltage; and  
5           varying an input current to an inverting input of the differential amplifier to  
6 produce a second input voltage.

1 5. (Original) The method of claim 1 wherein varying the output voltage of the  
2 voltage circuit further comprises altering the number of transistors in the voltage circuit  
3 determining the output voltage.

1 6. (Original) The method of claim 1 wherein the method of producing a uniform  
2 duty cycle output from a random bit source is used in a random number generator  
3 operable to produce random binary numbers for use in a cryptographic system for secure  
4 communications between a plurality of computers in a network.

7-24. (Cancelled)

1 25. (Previously Presented) The method of claim 1 wherein the first threshold is  
2 fifty percent.

1 26. (Previously Presented) A random bit source comprising:  
2 a latch to produce a uniform duty cycle output;  
3 a component to test the duty cycle; and  
4 a programmable voltage source to vary an output voltage if the duty cycle has not  
5 substantially reached a first threshold and iteratively alter the output voltage until the  
6 duty cycle has not substantially reached the first threshold.

27. (Cancelled)

1 28. (Previously Presented) The random bit source of claim 26 wherein the  
2 programmable voltage source comprises a flash memory cell, wherein varying the output  
3 voltage of the voltage circuit further comprises updating a threshold voltage of the flash  
4 memory cell.

1 29. (Previously Presented) The random bit source of claim 26 wherein the  
2 programmable voltage source further comprises differential amplifier, wherein varying  
3 the output voltage of the programmable voltage source further comprises varying an input  
4 current to a non-inverting input of the differential amplifier to produce a first input  
5 voltage and varying an input current to an inverting input of the differential amplifier to  
6 produce a second input voltage.

1 30. (Previously Presented) The random bit source of claim 26 wherein varying  
2 the output voltage of the programmable voltage source further comprises altering the  
3 number of transistors in the programmable voltage source determining the output voltage.

1 31. (Previously Presented) The random bit source of claim 26 wherein  
2 producing a uniform duty cycle output from the random bit source is used in a random  
3 number generator operable to produce random binary numbers for use in a cryptographic  
4 system for secure communications between a plurality of computers in a network.

1 32. (Previously Presented) The random bit source of claim 26 wherein the first  
2 threshold is fifty percent